River, suffered many vicissitudes. There was frost almost every night, and the average temperature was only 35°, being the coldest for thirty years. On the 10th, the anniversary of the blizzard of 1888, the minimum was only 2° above zero. A vivid picture of the ice storm that prevailed during the 15–17th is published by Mrs. Britton, the wife of the director of the garden, in the first volume of the journal of the New York Botanical Garden. She says:

Notwithstanding the cold weather of the month, there have been warm, quiet days and abundant signs of spring. The hylas were peeping and the snow-drops were blooming in the nurseries on the 10th, and robins, meadow-larks, and song-sparrows had been singing. The sap of the sugar-maples flowing from broken twigs had made icicles several inches long during the night, and a few venturesome silver-maples had thrust out their pale stamens. On the 15th the second snowstorm of the year arrived, quietly piling up eight inches of snow on the level, and changing to sleet during the night. The next morning dawned clear and cold, the sky was blue and cloudless, and every common thing stood transformed to crystal, tinkling with icicles and hung in prismatic rainbows.

We may look to the authorities of the New York garden for phenological records that will permit full and reliable comparison with similar data from other parts of the world, and with that for the early years of our own settlements.

Three meteorological stations have been established in the garden. Station 1 is located in the herbaceous grounds. Station 2 is on a low ridge in the center of the hemlock forest. Station 3 is in the central portion of the elevated plain of the fructicetum, which is bordered on the east by a deciduous forest, and on the south by artificial lakes and the hemlock forests. The thermometers are contained in shelters of the United States Weather Bureau pattern. This new meteorological station is about 12 miles northeast by north from the regular Weather Bureau station. The record at botanical garden, station 1, for April is as follows: Precipitation, 2.39 inches. Maximum temperatures, 77°, at 2 p. m. on the 30th. Minimum temperatures, 21.5°, at 6.30 a. m., on the 10th.

STORM IN YUCATAN.

A report from Merida, Yucatan, states that "a terrific hurricane struck here April 23, resulting in great loss of property." On that date an extensive area of low pressure had its southern extremity in the Gulf of Mexico, and severe local storms may have prevailed in that region, but nothing sufficiently extensive to be called a hurricane seems likely to have occurred. Apparently, this is another case of the reportorial use of high-sounding words. A destructive wind may be a norther, a tornado, a thunderstorm gust—it may even be called a wind of hurricane force—but it is not a hurricane. The latter term applies to a destructive wind circulating about a local area of low barometric pressure, and moving day after day along the surface of the earth. Later in the summer the local storms of the West Indies and Gulf of Mexico may develop into grand hurricanes, but these are not likely to occur so early as April or May.

LOCAL ANEMOMETRIC PECULIARITIES.

In the annual report for 1899 of the Fernley Observatory, at Southport, England, lat. 53° 39′ 24″ N.; long. 2° 59′ 3″ W., therefore, about twenty miles north of Liverpool, the meteorologist, Mr. Joseph Baxendell, gives some accounts of experiments with the pressure tube anemometer devised by Dines, but essentially based on the principles involved in the Hageman anemometer. He says:

Although no very thorough or detailed comparison between the indications of the Dines pressure tube anemometers at the Hesketh Park Observatory, and the Marshside station has yet been made, the average difference between the wind force at the two situations is so remarkable that it may be of interest to give, without further delay, the monthly mean values of wind velocity during 1899, at the respective stations.

The "head" of the Dines instrument at Hesketh Park is 36 feet above the summit of the highest hill or knoll in the town, and 26 feet above the top of the roof of the Fernley structure, by which the knoll is capped. It is 85 feet above mean sea level. Some further idea of its exposure and surroundings may be obtained from an inspection of the frontispiece to the annual report for 1897.

The "head" of the Dines anemometer at Marshside is 50 feet above very level ground, and 40 feet above the roof of the brick hut. It is 66 feet above mean sea level. In this case there is a very open exposure, and a large majority of winds reach the instrument without having previously encountered any seriously deflecting or obstructing object.

Mean velocity of the wind.

1899.	Hesketh Park. Miles per hour.	Marshside. Miles per hour.	1899.	Hesketh Park. Miles per hour.	Marshside. Miles per hour.
January	7.0	14.0	August	4.8	10.0
February	6.5	10.5	September	8.3	18.0
March	5.2	12.1	October	4.5	11.7
April	8.0	14.0	November	7.1	15.5
May	4.4	8.9	December	5.0	10.7
June	3.9	8.9			
July	4.6	11.8	Year	5.8	12.2

Every possible precaution has been taken to insure the accurate working of the two instruments. The one at Hesketh Park has been dismounted and entirely refitted, the pipes also being tested, but the differences continue as before.

Although these two anemometers are not very far apart yet there is *a priori* no special reason for surprise at the great difference between the two records. When the wind blows over an obstacle, or a series of obstacles, there is at once produced a systematic derangement in the otherwise steady streams of air which are now thrown into violent contortions and the individual currents so interfere with each other as to greatly diminish the average velocity of the wind over a large region in the rear of the obstacle. An exploration of the surrounding region usually shows that the wind is blowing its full strength in various unexpected places, between which are found minor currents due to the obstacles. Above and outside of these currents the wind also blows with full strength.

In the present case the winds reach the Marshside anemometer with much less interruption from distant trees and structures, and we can but believe that the records for the two stations differ from this reason only and not because of errors in the apparatus.

THE SEASONAL RAIN IN COLORADO.

In the annual summary of the Colorado section Mr. F. H. Brandenburg, Section Director, gives not only the annual numerical tables, but a general review for the winter 1898–99, from which it appears that much more than the normal amount of snow fell, forming vast drifts, so that on July 1, 1899, a much greater amount was stored in protected places at great altitudes than usual, giving good prospects for a steady flow in summer. Mr. Brandenburg also contributes a chapter to a discussion of long-range or seasonal forecasts. He shows that, so far as concerns the temperature records at Denver, the average temperature for a season, or a longer period, has apparently no connection with the temperature of the coming season; that, in general, an exceptionally warm spring or summer does not follow an abnormally cold winter. The compensations occur, not in the immediately following seasons, but at uncertain intervals of time.

With regard to precipitation at Denver, he finds that nota-